

REMARKS

This submission is responsive to the Final Office Action of May 7, 2008, as well as to the Advisory Action mailed September 4, 2008. These papers are also filed supplemental to the Submission under 37 C.F.R. § 1.114 filed on September 8, 2008. Inasmuch as these papers are filed supplemental to the papers filed on September 8, 2008, no fee is believed due at this time. However, if any fee is deemed to be necessary, the same is hereby requested and the Patent and Trademark Office is authorized to charge any necessary fees to maintain the pendency of this application to Deposit Account No. 19-0089. With this Amendment, Applicants add new claims 15-18. Claims 1, 2, 4-6, 8-10, 12, and 14-18 are pending.

Reconsideration and withdrawal of the rejections made in the Final Office Action of May 7, 2008 are respectfully requested in view of the following amendments and remarks. Support for the amendment as filed can be found in the specification and claims as filed, e.g., page 17, lines 13-18; page 30, lines 6-12; and page 31, lines 10-22. Applicants note that the passages cited in support of the amendment refer to page and lines number of the clean copy of the substitute specification filed April 12, 2006.

Claim Rejections – 35 U.S.C. § 103

The Office Action rejects claims 1-2, 4-6, 10, and 14 under 35 U.S.C. § 103(a) as allegedly being unpatentable over Okazaki et al. (U.S. Patent 6,495,862; hereinafter OKAZAKI) in view of Poicus et al. (U.S. Patent 6,987,613; hereinafter POICUS) and Babich et al (U.S. Patent Application Publication 2005/0064322 A1; hereinafter BABICH).

The Office Action also rejects claims 8-9 and 12 under 35 U.S.C. § 103(a) as allegedly being unpatentable over OKAZAKI in view of POICUS and BABICH, and further in view of Holman et al (U.S. Patent Application Publication 2004/0080938; hereinafter HOLMAN).

In the Advisory Action mailed September 4, 2008, the Office further relies on Chou et al. ("Nanoimprint Lithography" *J. Vac. Sci. Technol. B* **14**(6):4129-4133, 1996; hereinafter CHOU) and Hirai et al. ("Study of the Resist Deformation in Nanoimprint Lithography" *J. Vac. Sci. Technol. B* **19**(6):2811-2815, 2001; hereinafter HIRAI) in support of maintaining the above rejections. These documents, however, are not formally used in a rejection of record.

In response, Applicants respectfully submit that the instantly claimed methods are not anticipated or suggested by OKAZAKI either alone or in combination with POICUS, BABICH, and/or HOLMAN. Applicants further submit that neither CHOU nor HIRAI make up for the deficiencies of the OKAZAKI, POICUS, BABICH and/or HOLMAN documents.

For the sake of brevity, Applicants refer the Examiner to the arguments made in the response filed August 7, 2008 and well as in the submission filed September 8, 2008. In particular, Applicants note that claim 1 recites a production method for producing a light-emitting device in which a light-emitting layer at least including an n-type semiconductor layer and a p-type semiconductor layer is layered on a transparent crystal substrate, comprising: applying a silicon organic solvent to at least a part of the transparent crystal substrate or the light-emitting layer to form a transfer layer on at least a part of the transparent crystal substrate or the light-emitting layer; softening or setting said transfer layer upon supplying an energy thereto; pressing a mold formed with a minute unevenness structure against the transfer layer to transfer the minute unevenness structure to an outer surface of the transfer layer under a pressure of 5 MPa or higher and 150 MPa or lower; and dry etching the transfer layer with a chlorine gas

using the transfer layer as a resist mask to form a minute unevenness structure for preventing multiple reflection in the transparent crystal substrate or the light-emitting layer. The documents listed above, either alone or in combination, do not disclose or suggest such a method, and for at least this reason, do not render the claimed invention unpatentable.

Neither do the documents listed above disclose such a method wherein the silicon organic solvent is applied at a thickness of 2 μm or greater, nor wherein the silicon organic solvent comprises:

an alcohol, an ester, a ketone or a mixture of two or more of an alcohol, an ester, or a ketone, and

a silicon alkoxide component, $\text{R}_n\text{Si}(\text{OH})_{4-n}$, where R is H or alkyl group, and n is an integer of 0 to 3. Applicants respectfully request withdrawal of the rejections under 35 U.S.C. § 103(a).

In particular, Applicants submit that in contrast to the Office's assertions in the Advisory Action dated September 4, 2008, 1) OKAZAKI and BABICH do not teach the use of a silicon organic solvent as claimed, and 2) *In re Keller* does not support the rejection of the claims under 35 U.S.C. § 103(a) as the Office asserts because *In re Keller* is not germane to the rejection. Accordingly, the Office's reliance upon *In re Keller* is misplaced.

With regard to the teachings of OKAZAKI and BABICH, the Final Office Action dated May 7, 2008 states "Babich also teaches that it was well known in the art to use silicon organic solvent materials, (TEOS) as a hard mask for dry etching (0032)" (see page 5, 1st full paragraph). However, BABICH teaches GeOHX (X is selected from Si, N, and F) films which may act as an anti-reflection layer in any lithographic process (page 3, paragraph [0030 - 0031]). BABICH further teaches that the use of GeOHX compositions allows for fine tuning of optical constants,

and that the optical properties at particular wavelengths and the lithographic features of the film produced as a result are vastly superior to those obtained by other hardmask materials such as oxide type materials, *including TEOS, BSG, and other nitride type materials*. In this respect, BABICH teaches *away* from the use of a silicon organic solvent such as TEOS.

Applicants further submit that the Office's reliance upon *In re Keller* 642 F.2d 413, 425, 208 USPQ 871, 881 (CCPA 1981) is misplaced. The claims at issue in *In re Keller* were drawn to an apparatus comprising several elements, all of which had been disclosed in the cited art (*See Keller* at 421-22.) Appellant argued that *if* the documents were to be combined, the resulting *structure* would not fairly meet the claims in issue (*Id.* at 424; emphasis added). Furthermore, the court in *Keller* held that "the question is whether it would have been obvious to one of ordinary skill in the art, working with the [cited documents] before him, to do what the inventors herein have done..."(*Id.* at 425).

Applicants submit that *In re Keller* is not germane to the rejections of record and fails to support the Office's assertion for at least two reasons. First, Applicants submit that OKAZAKI, POICUS, BABICH and/or HOLMAN, either alone or in any properly reasoned combination, do *not* disclose or suggest at least the claimed combination of process elements. In particular, Applicants submit that the cited documents fail to teach the specific combination of recited elements such that they comprise the claim methods, including the combination of mold stamping, dry etching and pressing as recited.

Second, were one to apply the test for obviousness as adopted by the *Keller* court, the cited documents would fail to render the claimed subject matter unpatentable. In particular, Applicants submit that were one of ordinary skill in the art to work with the herein cited documents before him, it would not have been obvious to do what Applicants have done. In

other words, the cited documents do not suggest the production methods as claimed, and the Office has failed to make up for any of the deficiencies of the cited documents by setting forth a rationale for why one of ordinary skill in the art would have combined the documents as asserted.

Based at least on the foregoing, Applicants submit that OKAZAKI, POICUS, BABICH and/or HOLMAN, either alone or in any properly reasoned combination, do not disclose or suggest the claimed subject matter. Accordingly, Applicants respectfully request that the rejections under 35 U.S.C. § 103(a) be withdrawn.

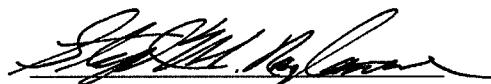
CONCLUSION

In view of the foregoing, the Examiner is respectfully requested to reconsider and withdraw the rejections of record, and allow all the pending claims.

No fee is believed due at this time. If, however, any fee is necessary to ensure consideration of the submitted materials, the Patent and Trademark Office is hereby authorized to charge the same to Deposit Account No. 19-0089.

Should there be any questions, the Examiner is invited to contact the undersigned at the below listed telephone number.

Respectfully submitted,
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